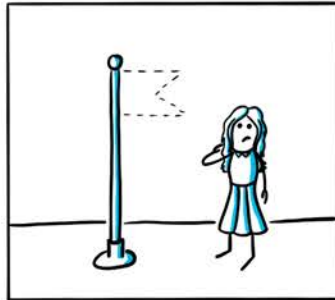
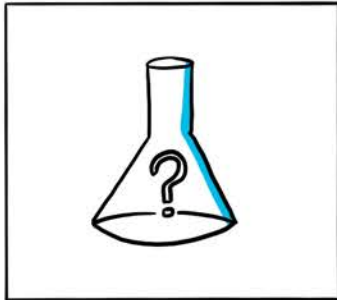
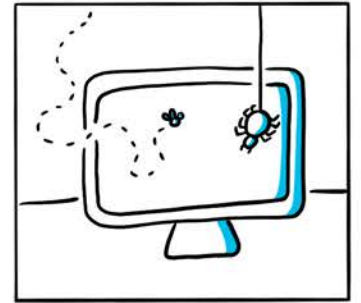
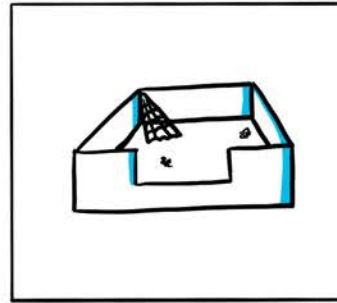
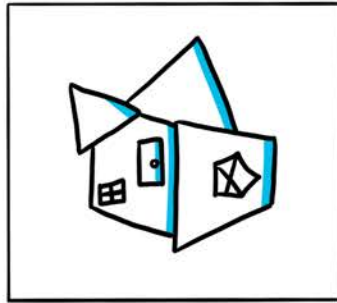
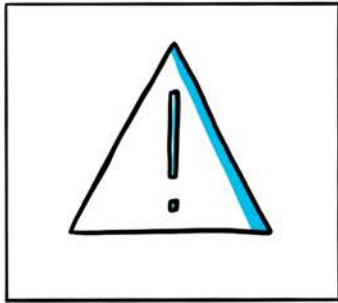
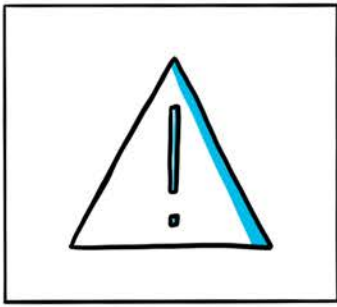


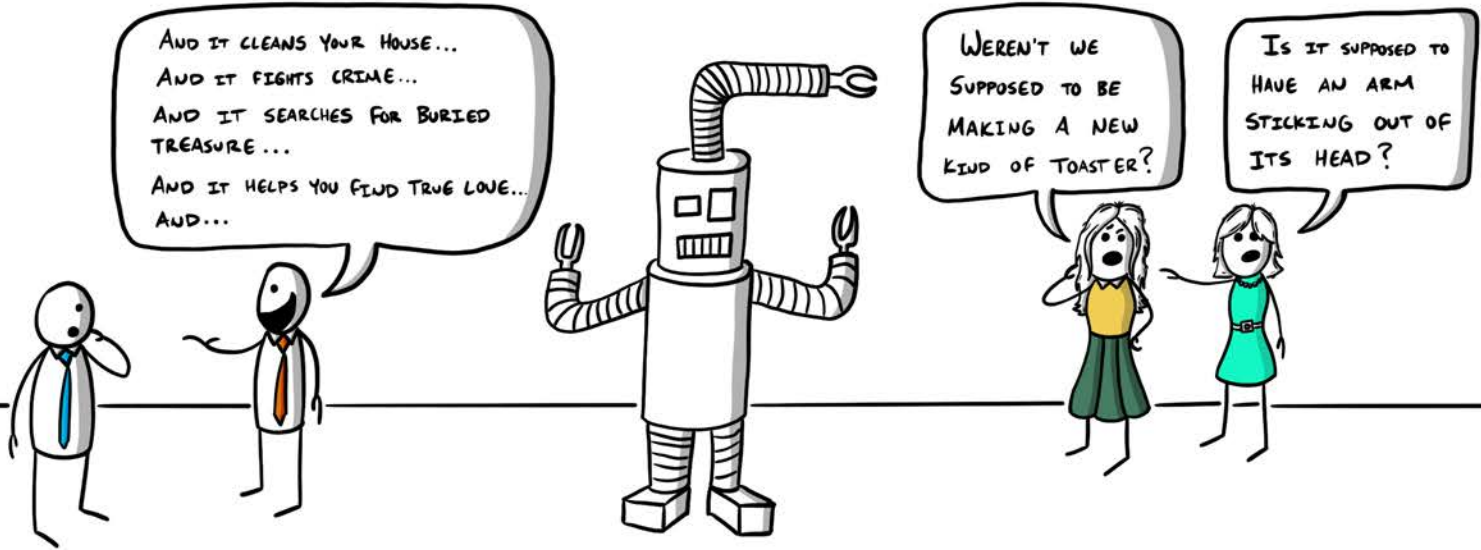
THE 7 DEADLY SINS OF TECHNICAL DEBT



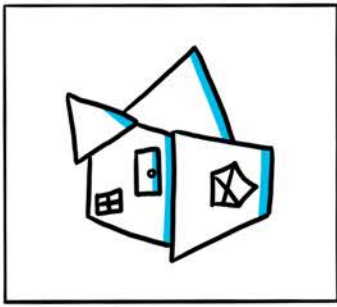
AgileDad



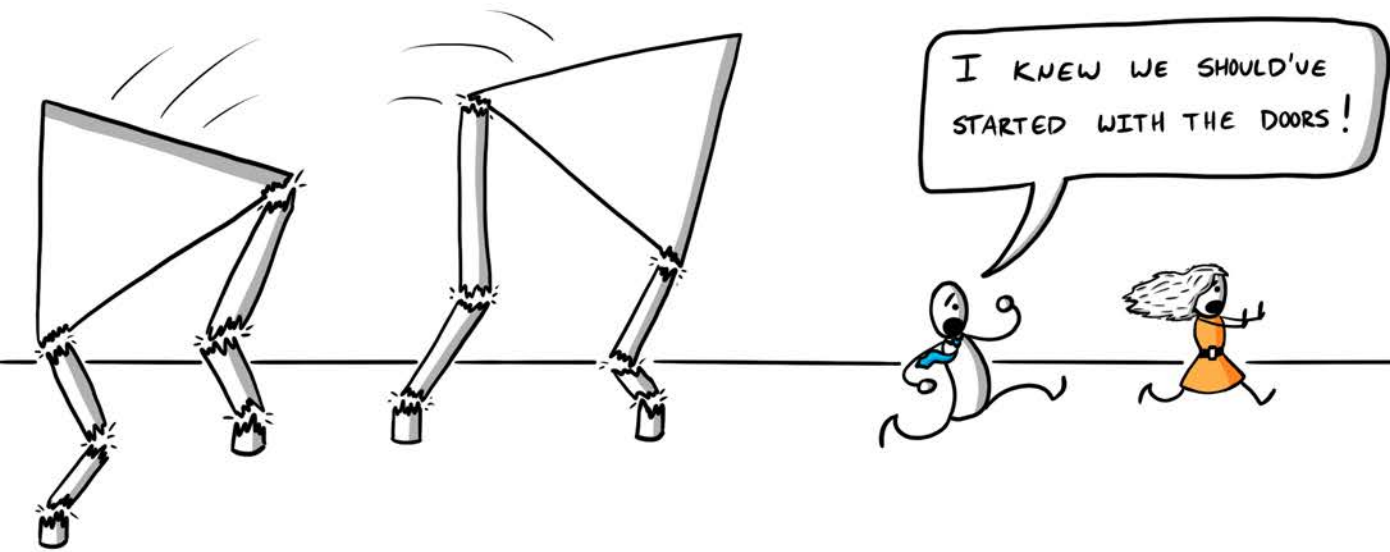
UNINTENDED FEATURES



ALTHOUGH IN PRINCIPLE IT MAY SOUND EXCITING TO BUILD THE MOST FEATURE RICH IMPLEMENTATION OF WHAT YOU'RE TRYING TO DELIVER, IN MANY CASES THE MAINTENANCE ALONE COULD BE ENOUGH TO MAKE THAT NOT THE BEST IMPLEMENTATION IDEA. ON MANY PROJECTS THE DELIVERY TEAMS ARE ENCOURAGED TO EXCEED STAKEHOLDER EXPECTATIONS. THE DANGER IS IN CREATING EMERGENT CODE AND STRAYING FROM WHAT COULD BE THE MINIMUM VIABLE PRODUCT. WHEN IN DOUBT, KEEP IT SIMPLE. SIMPLE IMPLEMENTATIONS ARE OFTEN THE ROOTS OF GREAT PRODUCTS IN THE FUTURE.

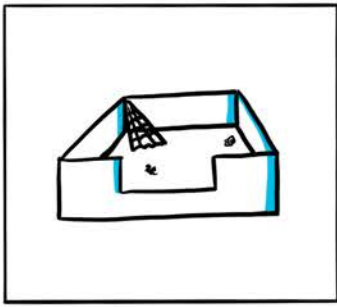


POORLY DESIGNED ARCHITECTURE

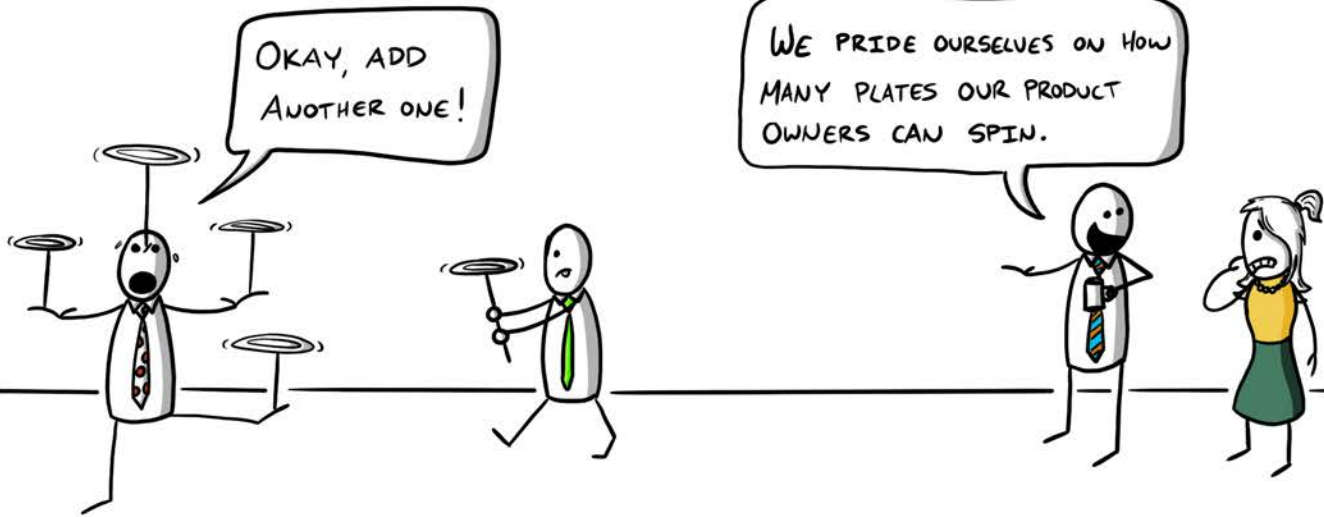


THERE ARE TWO TYPES OF ARCHITECTURE:

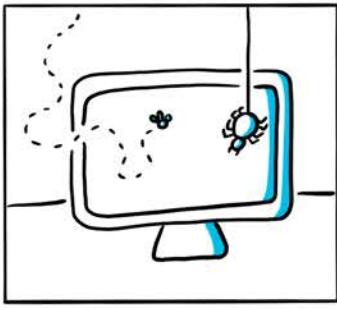
- 1) SCARECROW ARCHITECTURE — IN THE WIZARD OF OZ THE SCARECROW HAD THREE TRAITS THAT WOULD GET HIM INTO TROUBLE. FIRST, HE WAS BRAINLESS. SECOND, EVERY TIME HE DANCED OR MOVED HIS FRIENDS WOULD STUFF HIM WITH MORE STRAW, WHETHER HE NEEDED IT OR NOT. THIS IS LIKE BRAINLESSLY STUFFING WHAT IF ARCHITECTURE INTO THE CODE JUST IN CASE YOU NEED IT LATER. THIRD, HE WAS FLAMMABLE. ANYONE WHO HAS BUILT HAPHAZARD ARCHITECTURE KNOWS WHAT IT'S LIKE TO GET BURNED.
- 2) STEEL THREAD ARCHITECTURE — PRIOR TO LASER MEASUREMENT, BUILDINGS AND SPANS WERE CONSTRUCTED USING THE STEEL THREAD METHOD. ARCHITECTS WOULD STRETCH A SINGLE STEEL THREAD ACROSS A SPAN IN ORDER TO ACCURATELY MEASURE DISTANCE. GET IN THE HABIT OF CREATING EMERGENT ARCHITECTURE. HAVE CONTROLS IN PLACE TO HELP REPURPOSE BUILT ARCHITECTURE AND BETTER LEVERAGE CODE. MAKE IT A PRACTICE TO ONLY WRITE WHAT CODE IS NECESSARY IN ORDER TO ACHIEVE THE BASIC GOAL. DON'T OVERDO IT.



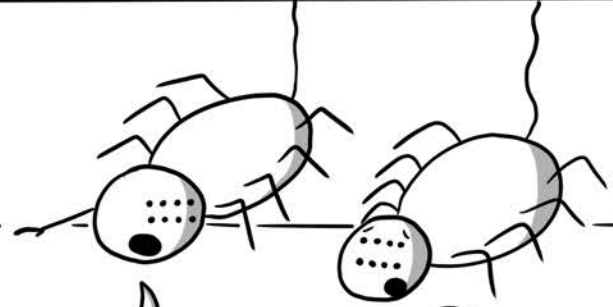
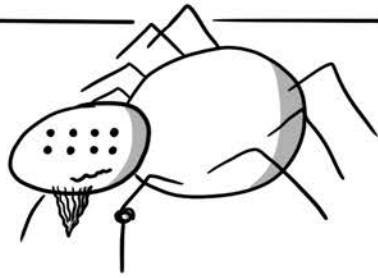
LACK OF PRODUCT BACKLOG MANAGEMENT INAPPROPRIATE VISIBILITY



THE PRODUCT BACKLOG IS OFTEN ONE OF THE MANY MISUNDERSTOOD MYSTERIES OF AGILE. IN 2002, KEN SCHWABER ENCOURAGED PRODUCT OWNERS TO CAPTURE EVERY WHIM AND/OR IDEA IN THE PRODUCT BACKLOG. IN SMALL ORGANIZATIONS THIS IS A GREAT THING TO PRACTICE. FOR ENTERPRISE ORGANIZATIONS, WHAT'S NOT BEING ACTIVELY ADDRESSED IN THE BACKLOG IS SOMETIMES CLUTTER, ESPECIALLY FOR PRODUCT OWNERS WITH MANY SPINNING PLATES. MAINTAINING A BACKLOG THAT CLEARLY STATES WORK IN MOTION IS PREFERABLE. DISPLAYING WHAT IS BEING WORKED ON IN THE CURRENT RELEASE IS OPTIMAL, THEN DISPLAYING WORK FOR AN UPCOMING RELEASE AS THE CURRENT RELEASE WINDS DOWN. FAILURE TO MAINTAIN APPROPRIATE VISIBILITY COULD CAUSE CONFUSION OVER WHAT WORK IS ON DECK AND WHAT ORDER THE REMAINING WORK COULD BE COMPLETED IN. THIS IS ALSO A LEADING CAUSE OF MISINTERPRETATION OF FORECASTING AND THE NUMBER ONE REASON LEADERSHIP HAS LIMITED CONTROL OF WORK IN PROGRESS.



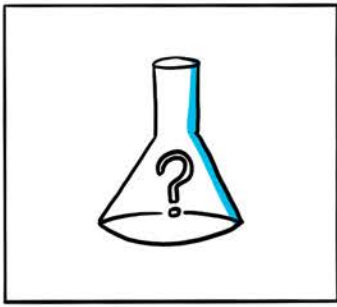
OUTDATED DEFECTS & BUGS



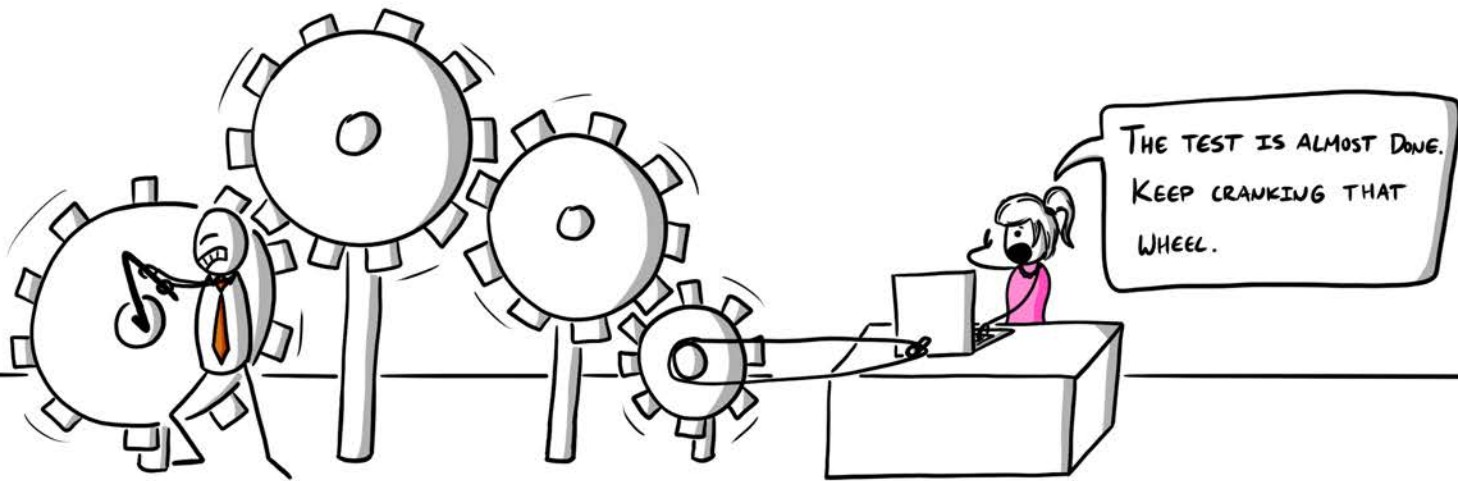
THAT'S OLD MAN JENKINS,
FIRST BUG IN THE SYSTEM.
THEY SAY HE'S BEEN HERE
FOR 20 YEARS OR SO.

WHOA!

THE BIG QUESTION FOR MOST ORGANIZATIONS IS HOW OLD SHOULD THE OLDEST DEFECT OR BUG IN THE QUEUE BE? WHILE MANY ORGANIZATIONS STRUGGLE WITH THIS ANSWER, IT REALLY IS QUITE SIMPLE. TEAMS THAT EMBRACE AGILE WORK ON BUGS QUICKLY AND GET THEM RESOLVED. BUGS ARE TYPICALLY ADDRESSED IN THE CURRENT SPRINT IF THEY ARE MISSION CRITICAL OR QUEUED FOR THE NEXT SPRINT IF NOT. GONE ARE THE DAYS OF TRADITIONAL DEFECT TRIAGE SESSIONS. WHEN ALL IS SAID AND DONE, MOST DEFECTS ARE SOLVED BEFORE THEY ARE FORMALLY STARTED. EITHER THE CUSTOMER HAS FOUND A SUITABLE WORK AROUND, THE DEFECT HAS BEEN FIXED WHEN ADDRESSING SOMETHING ELSE, THE DEFECT WAS ACTUALLY A REQUEST FOR ENHANCEMENT, OR THE DEFECT SOMETIMES JUST DOESN'T MATTER. A NEW STATUS CALLED KNOWN BUT NOT RESOLVED GIVES ORGANIZATIONS THE CHANCE TO ARCHIVE OUTDATED DEFECTS WITHOUT HAVING TO FEEL OBLIGATED TO DO DEEP RESEARCH AND ANALYSIS WHEN IT'S NOT NECESSARY. THIS ALSO AFFORDS THE REAL DEFECTS THAT ARE AFFECTING YOUR CUSTOMERS TO SCRATCH THEIR WAY TO THE SURFACE. RISK TOLERANCE NATURALLY IS A KEY TO BEING DECISIVE IN WHERE TO DRAW THE LINE.

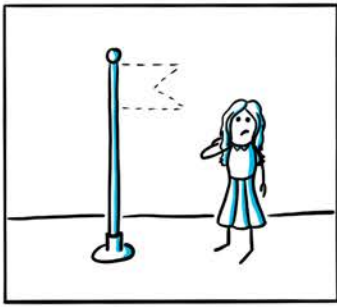


LACK OF AUTOMATED TESTING



WHAT PERCENTAGE OF YOUR CODE REQUIRES DEVELOPERS TO PERFORM A QUALIFIED UNIT TEST? IF YOUR ANSWER WAS LESS THAN 100%, SHAME ON YOU! EVERY DEVELOPER WILL BE QUICK TO COMPLAIN AND CALL THIS ADDITIONAL BUSY WORK WHEN THEY COULD BE CRANKING OUT ADDITIONAL CRAPPY CODE. IT IS CRITICAL THAT WE TEACH DEVELOPERS TO TEST ALL OF THEIR CODE. THEY WILL BECOME BETTER DEVELOPERS AND TESTERS AS A RESULT.

WHAT PERCENTAGE OF YOUR CORE CODE WARRANTS AN AUTOMATED REGRESSION TEST? IT'S IMPORTANT TO HAVE AUTOMATED REGRESSION TEST SUITES IN ORDER TO HAVE THE BEST CHANCE POSSIBLE TO CATCH WHEN SOMETHING NEW HAS BROKEN SOMETHING PREVIOUSLY BUILT. THE KEY HERE IS HOW MANY, HOW FAR, AND HOW DEEP DO WE PLANT OUR REGRESSION BED? THE REAL ANSWER IS IT DEPENDS. EVERY ORGANIZATION HAS A DIFFERENT RISK TOLERANCE WHEN IT COMES TO DEFECTS. REGARDLESS OF YOUR RISK TOLERANCE, AS AN ORGANIZATION IT IS ALWAYS BEST TO PERFORM AUTOMATED REGRESSION TESTS.



LACK OF CODING STANDARDS



NO TWO CONSECUTIVE WORDS BOTHER DEVELOPERS MORE THAN CODING STANDARD. JUST AS MARKETING DEPARTMENTS AROUND THE WORLD HAVE CREATED STYLE GUIDES THAT INSTRUCT US ON THE BEST AND ONLY WAYS TO USE COMPANY LOGOS, WHAT OUR EMAIL SIGNATURE SHOULD LOOK LIKE, ETC. IT IS EQUALLY IMPORTANT THAT WE HAVE A STANDARD IN PLACE FOR BOTH CODING AND CODING AND TESTING. FOR DEVELOPERS, THIS MEANS THEY FOLLOW A STANDARD WHEN CONSTRUCTING CODE THAT WOULD ALLOW FOR ANY OTHER DEVELOPER TO FOLLOW BEHIND THEM AND KNOW EXACTLY WHAT THE FIRST DEVELOPER CODED AND WHAT IT WAS INTENDED TO DO. THE SAME IS TRUE FOR TESTERS. EVERY TEST SHOULD BE WRITTEN IN SUCH A WAY THAT ANY OTHER MERE MORTAL SHOULD BE ABLE TO SEE A TEST AND KNOW EXACTLY WHAT WILL BE TESTED AND WHAT THE EXPECTED RESULT SHOULD BE. THESE STANDARDS SHOULD BE INSTITUTED ASAP IF NOT CURRENTLY IN PLACE.



LACK OF REFACTORING / PEER REVIEW "PHILLIPE"



WHO IS PHILLIPE YOU ASK? EVERY ORGANIZATION KNOWS THIS GUY... HE DRIVES THE H1 HUMMER TO WORK AND PARKS SIDWAYS ACROSS ALL OF THE HANDICAP PARKING PLACES RIGHT IN FRONT OF THE BUILDING. HE COMES IN AT 10:30 AND IS NEVER THERE LATER THAN 3 PM. HE ENTERS AND QUICKLY RUNS TO HIS CORNER OFFICE WHERE MULTIPLE WALLS HAVE BEEN KNOCKED DOWN IN ORDER TO FIT HIS EGO AS THE CORNER OFFICE ALONE WAS NOT ENOUGH. HE TURNS ON HIS NINE MONITORS AND TAKES HIS HELM BEHIND THE STARSHIP I. AM. IMPRESSIVE AND SETS OFF AN ALARM THAT CAN BE HEARD THROUGHOUT THE BUILDING ALERTING OTHERS THAT HE HAS ENTERED THE BUILDING. ONLY TO TELL THOSE WHO INQUIRE OF HIS ASSISTANCE THAT HE IS WAY TOO BUSY TO ASSIST. YET THE CODE IS RIDDLED WITH PLACES THAT SAY IF YOU REACH THIS LINE OF CODE DO NOTHING, CONTACT PHILLIPE. WE ALL KNOW WHAT HAPPENS IF ANYONE ELSE TOUCHES THIS CODE. BOOM! THIS CHARACTER COULD BE THE BEST THING THAT HAS EVER HAPPENED TO YOUR ORGANIZATION OR THE WORST THING EVER CREATED. IT IS ALL IN THE MANNER IN WHICH HE ENGAGES WITH THE REST OF THE ORGANIZATION. HE IS SIMPLY A PUZZLE TO BE SOLVED.